

# **KINGSVILLE DOME URANIUM MINE AREA DATA AND ANALYSIS (A Work in Progress)**

## **Apr. 11, 2013 QUESTIONS**



EPA, Region 6  
Dallas, Texas

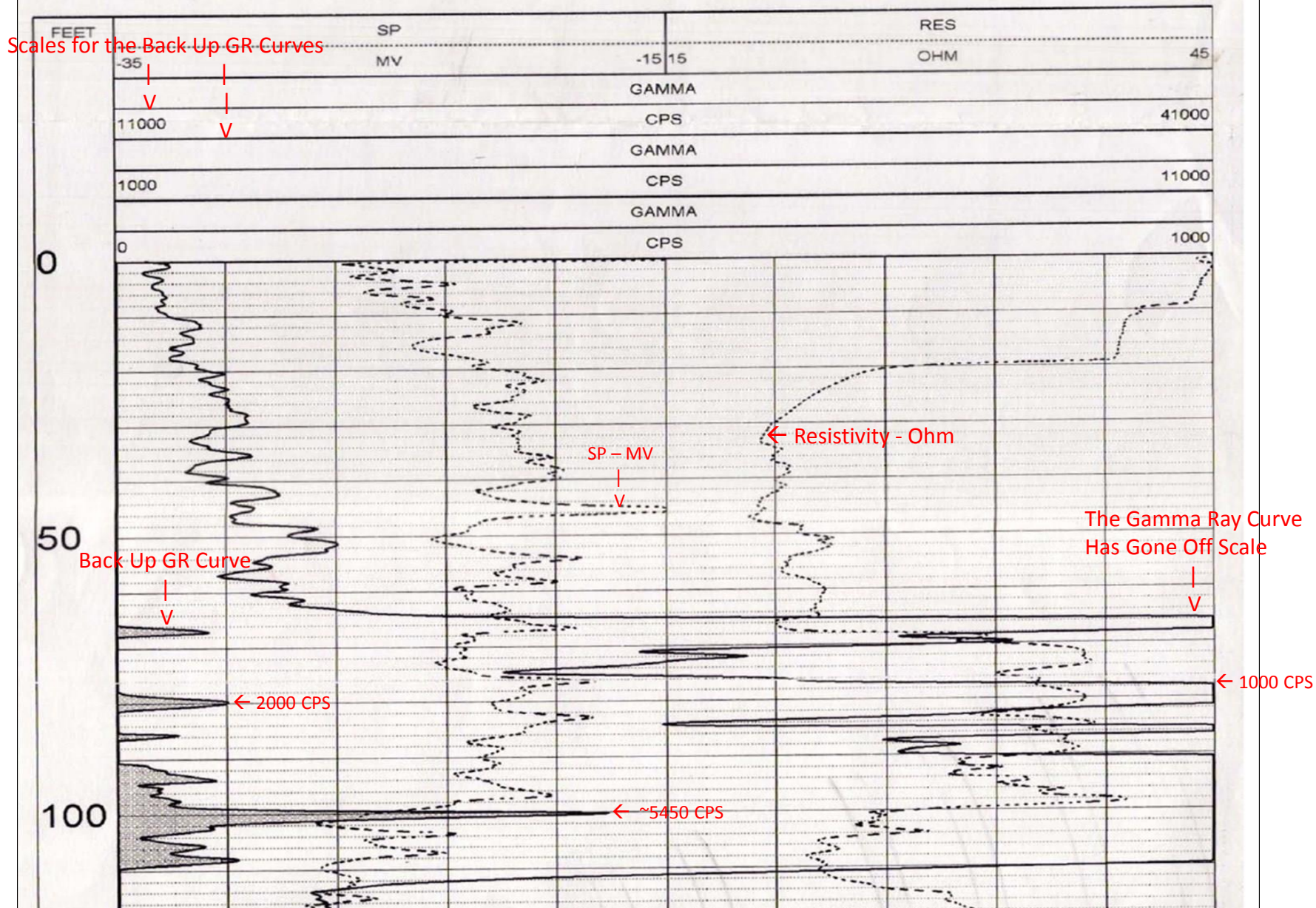
José Eduardo Torres  
Petroleum Engineer  
Chemical Engineer

KVD Data Review - A Work in Progress

# Questions on Log Scales and Nomenclature



EPA, Region 6  
Dallas, Texas



Sample Modern Log Showing Back Up Curve Scales for Gamma Ray Curve

URANIUM RESOURCES, INC

HOLE NUMBER GARCIA-1607

KLEBERG COUNTY TEXAS

SEC --- TWN --- RNG ---

KINGSVILLE DOME

TD DRILLED - 750  
TD LOGGED -  
LOGGING SPEED - 60 FPM  
REFERENCE - SURFACE  
BIT SIZE - 5 5/8

ELEVATION -  
CASING TYPE - NONE  
HOLE FLUID - H2O  
DRILLER - BWH/DJR

REMARKS:

COMPUTER LOGGING, INC.

Pleasanton, Texas  
Telephone 512-569-6256

CHARLIE - UNIT: 5  
9-12-89 - 1000 HRS.

TOOL MODEL/SER. NO.: 20-2

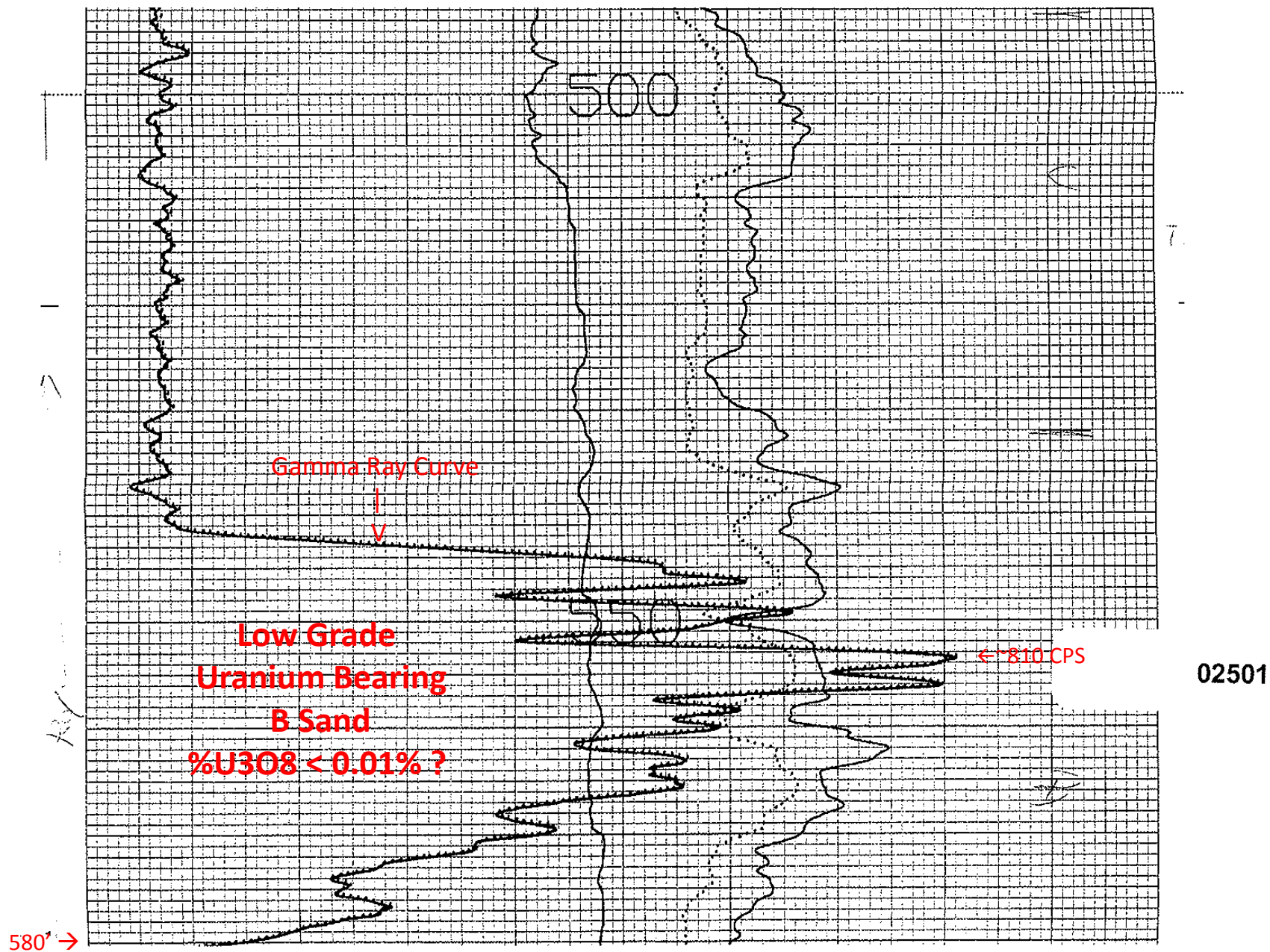
DETECTOR - .875 x 4.0 NaI(Tl)  
K-FACTOR - .00000617  
DEADTIME - .00000025  
TEST PIT - GEORGE WEST  
LAST CAL. - 9-3-89  
WATER FACTOR - 1.18  
CASING FACTOR -

DETECTOR - 1 X 6 INCH, HES  
SOURCE - 1.5 CI. PmB  
SPACING - 14 INCHES

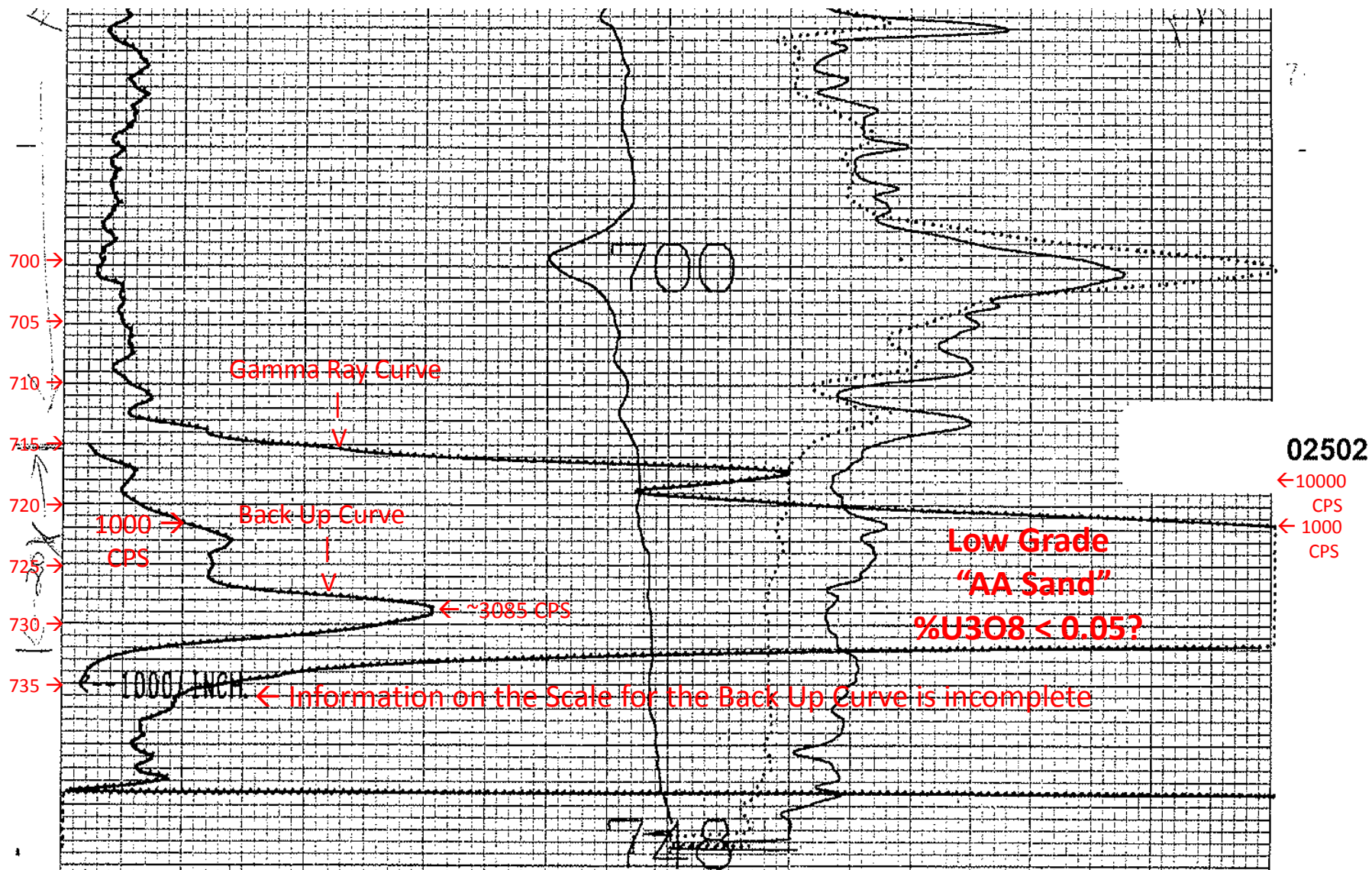
SINGLE POINT RESISTANCE  
SP/16 INCH NORMAL  
64 INCH NORMAL

NATURAL GAMMA  
NEUTRON  
ELECTRIC LOGS





KVD Exploratory Well Garcia 1607: At approximately 550 Ft North and East from W-20, just off CR 2130, Kleberg Co.



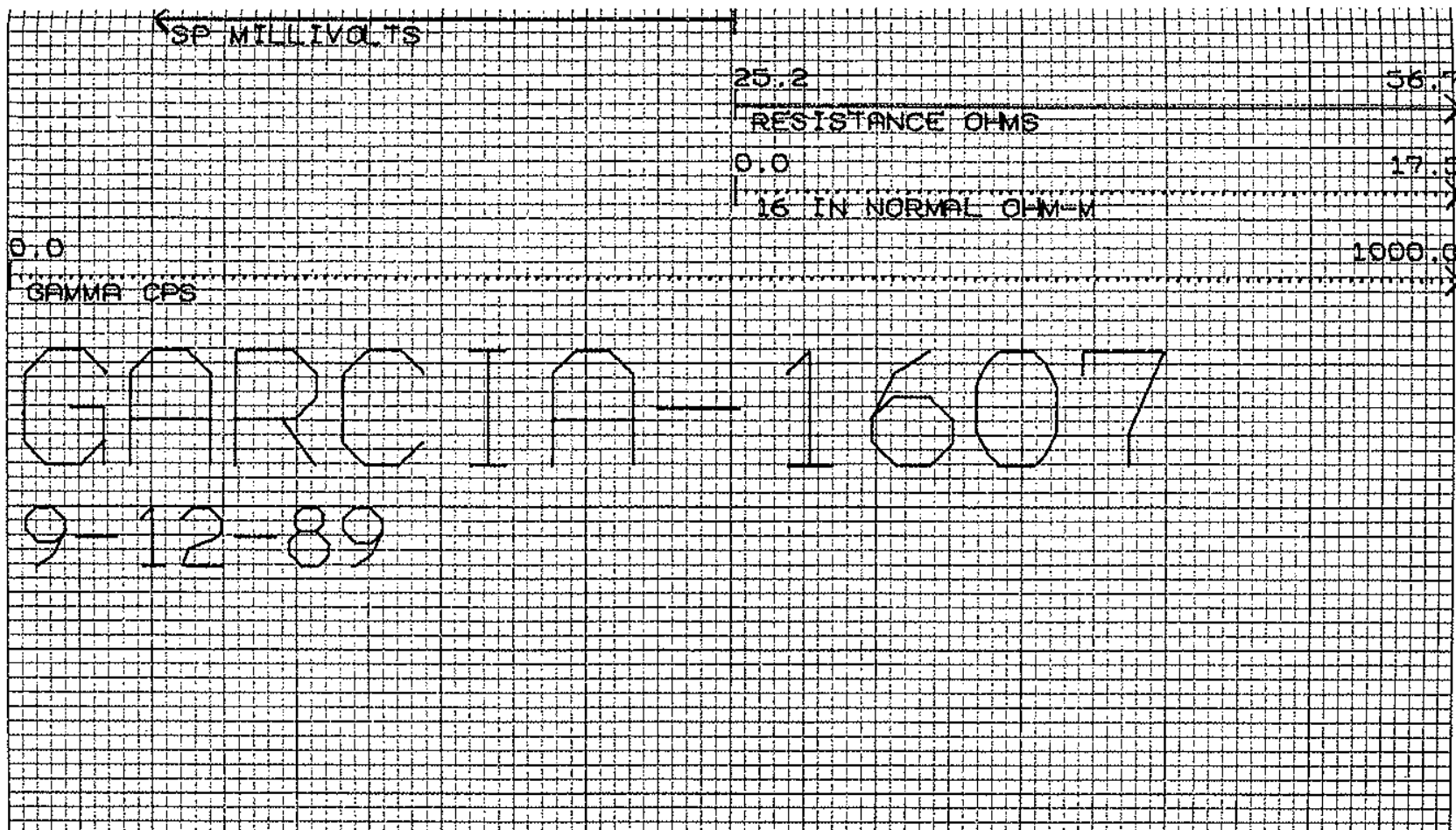
KVD Exploratory Well Garcia 1607: GR-SP-Res. Shown: the Low Grade Uranium Bearing "AA Sand"

(What is the meaning of the annotation "20X" seen posted at the 725 Ft level?, is it related to the GR Scale?) 6

## KVD Exploratory Well Garcia 1607

### Uranium Assay for "AA Sand" Segment

DEPTH	GAMMA-HI CPS PROBE COUNTS		GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT	DEPTH	GAMMA-HI CPS PROBE COUNTS		GAMMA-HI CPS, CORRECTED	%U3O8 RADIOMETRIC GRADE PER UNIT
715.00	200.00		200.01	0.0028	725.00	1250.00		1250.39	0.0177
715.50	250.00		250.02	0.0035	725.50	1200.00		1200.36	0.0170
716.00	300.00		300.02	0.0043	726.00	1250.00		1250.39	0.0177
716.50	450.00		450.05	0.0064	726.50	1275.00		1275.41	0.0181
717.00	580.00		580.08	0.0082	727.00	1550.00		1550.60	0.0220
717.50	590.00		590.09	0.0084	727.50	2200.00		2201.21	0.0312
718.00	550.00		550.08	0.0078	728.00	2700.00		2701.82	0.0383
718.50	500.00		500.06	0.0071	728.50	3085.00		3087.38	0.0438
719.00	500.00		500.06	0.0071	729.00	3085.00		3087.38	0.0438
719.50	540.00		540.07	0.0077	729.50	2900.00		2902.10	0.0412
720.00	610.00		610.09	0.0087	730.00	2640.00		2641.74	0.0375
720.50	700.00		700.12	0.0099	730.50	2300.00		2301.32	0.0327
721.00	880.00		880.19	0.0125	731.00	1900.00		1900.90	0.0270
721.50	1000.00		1000.25	0.0142	731.50	1200.00		1200.36	0.0170
722.00	1140.00		1140.32	0.0162	732.00	800.00		800.16	0.0114
722.50	1300.00		1300.42	0.0185	732.50	500.00		500.06	0.0071
723.00	1400.00		1400.49	0.0199	733.00	350.00		350.03	0.0050
723.50	1355.00		1355.46	0.0192	733.50	250.00		250.02	0.0035
724.00	1225.00		1225.38	0.0174	734.00	200.00		200.01	0.0028
724.50	1215.00		1215.37	0.0172	734.50	180.00		180.01	0.0026
725.00	1250.00		1250.39	0.0177	735.00	150.00		150.01	0.0021



### KVD Exploratory Well Garcia 1607. Well Log's Scales

Unfortunately, this old type of log does not provide an explicit secondary scale for the Back Up portions of the GR curve along with the primary scale.



URANIUM RESOURCES, INC

HOLE  
NUMBER

GARCIA-1619

KLEBERG COUNTY TEXAS

SEC--- TWN--- RNG---

KINGSVILLE DOME

TD DRILLED - 750  
TD LOGGED -  
LOGGING SPEED - 60 FPM  
REFERENCE - SURFACE  
BIT SIZE - 3 5/8

ELEVATION -  
CASING TYPE - NONE  
HOLE FLUID - H2O  
DRILLER - RMAJOR

REMARKS:

COMPUTER LOGGING, INC.

Pleasanton, Texas

Telephone 512-569-6256

CHARLIE - UNIT: 5

9-21-89 - 1430 HRS.

TOOL MODEL/SER.NO.: 20-2

NATURAL GAMMA

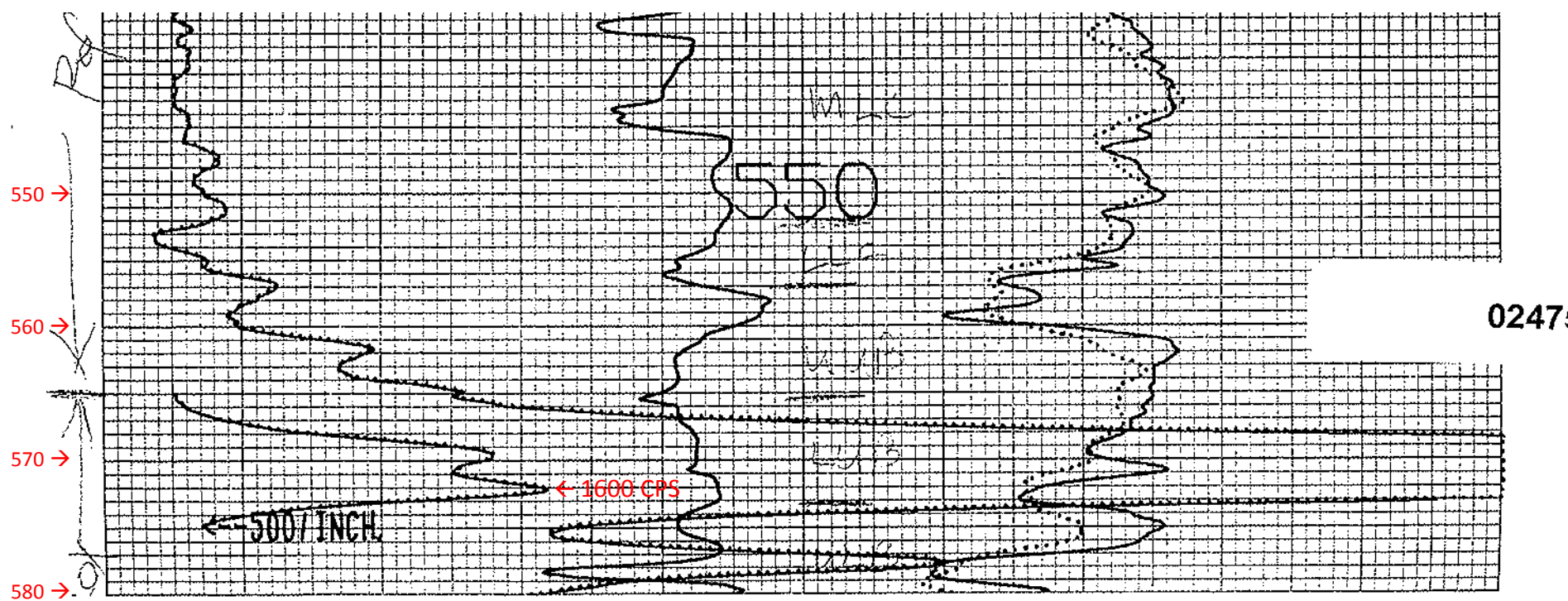
DETECTOR - .875 x 4.0 NaI(Tl)  
K-FACTOR - .00000617  
DEADTIME - .00000025  
TEST PIT - GEORGE WEST  
LAST CAL. - 9-3-89  
WATER FACTOR - 1.18  
CASING FACTOR -

NEUTRON

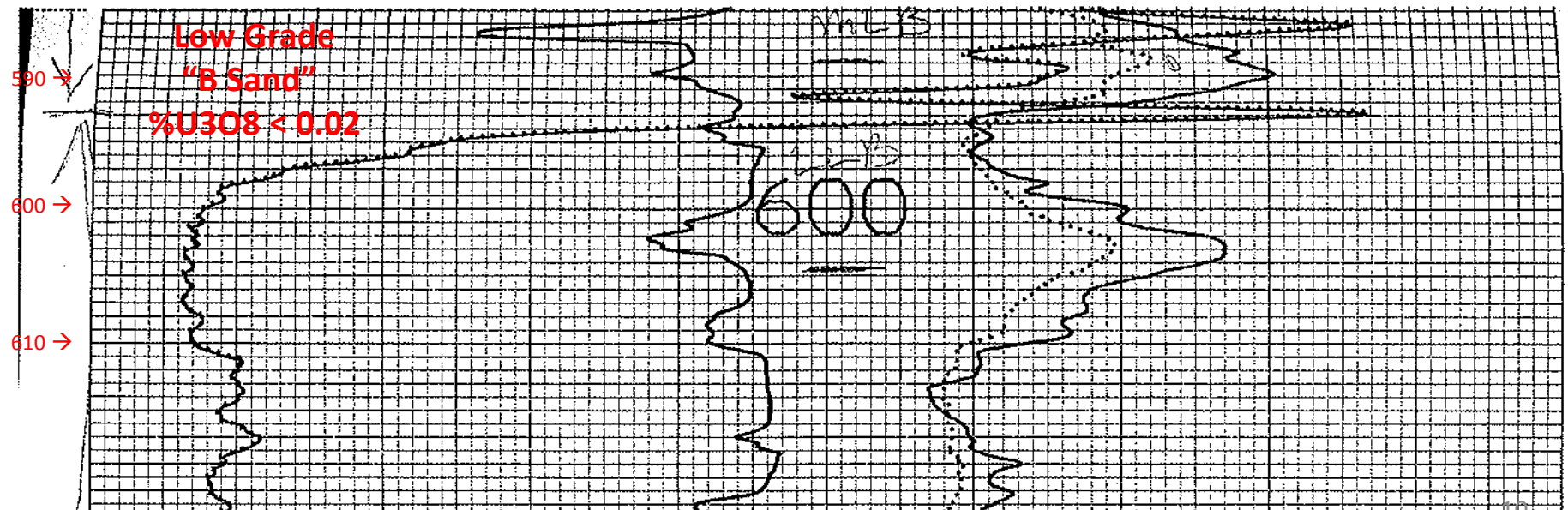
DETECTOR - 1 X 6 INCH. HE3  
SOURCE - 1.5 CI. DmBa  
SPACING - 14 INCHES

ELECTRIC LOGS

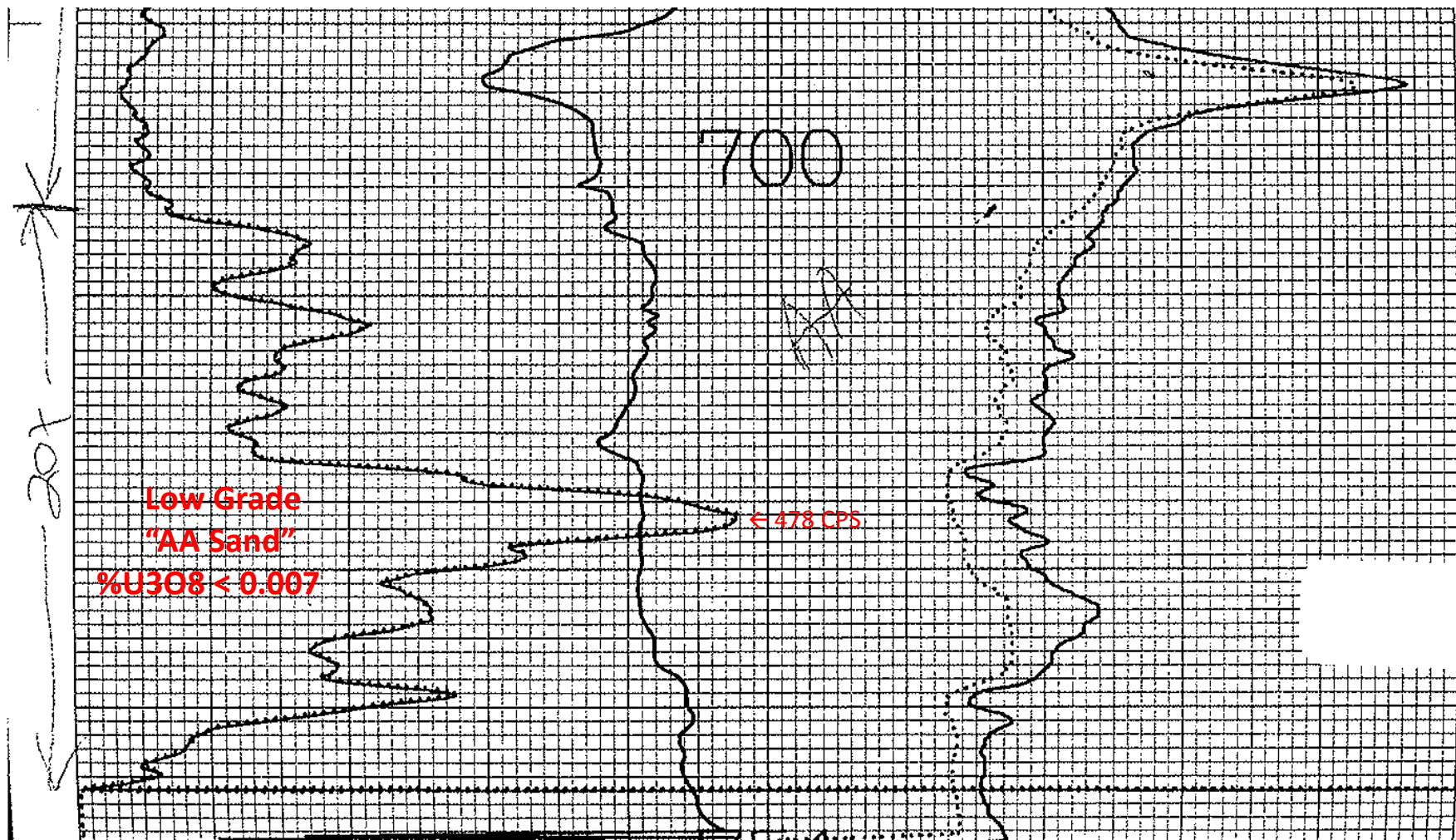
SINGLE POINT RESISTANCE  
SP/16 INCH NORMAL  
64 INCH NORMAL



Missing About 5 Ft of Log Info



KVD Exploratory Well Garcia 1619: GR-SP-Res. Shown: the Low Grade Uranium Bearing "B Sand"



KVD Exploratory Well Garcia 1619: GR-SP-Res. Shown: the Low Grade Uranium Bearing "AA Sand"



URANIUM RESOURCES INC.

HOLE  
NUMBER

GARCIA #1

KLEBERG COUNTY TEXAS

SEC --- TWN --- RNG ---

KINGSVILLE DOME

TD DRILLED - 900

ELEVATION -

TD LOGGED - 902

CASING TYPE - NONE

LOGGING SPEED - 60 FPM

HOLE FLUID - H2O

REFERENCE - SURFACE

FLUID TEMP -

BIT SIZE - 5 1/2

REMARKS:

DRILLER MARK

COMPUTER LOGGING INC.

Pleasanton, Texas

Phone 512-569-6256

JIM CANNON - UNIT: 3

11-23-87 - 1200

PROBE MODEL: 20-1

NATURAL GAMMA

DETECTOR - .875 x 4.0 NaI(Tl)

K-FACTOR - 6.68 E-6

DEADTIME - <.25 MICRO SECONDS

TEST PIT - 9-13-87

LAST CAL - GEORGE WEST

WATER FACTOR -

CASING FACTOR -

NEUTRON

DETECTOR - 1 X 6 INCH. HE3

SOURCE - 1.5 CI. AmBz

SPACING - 14 INCHES

ELECTRIC LOGS

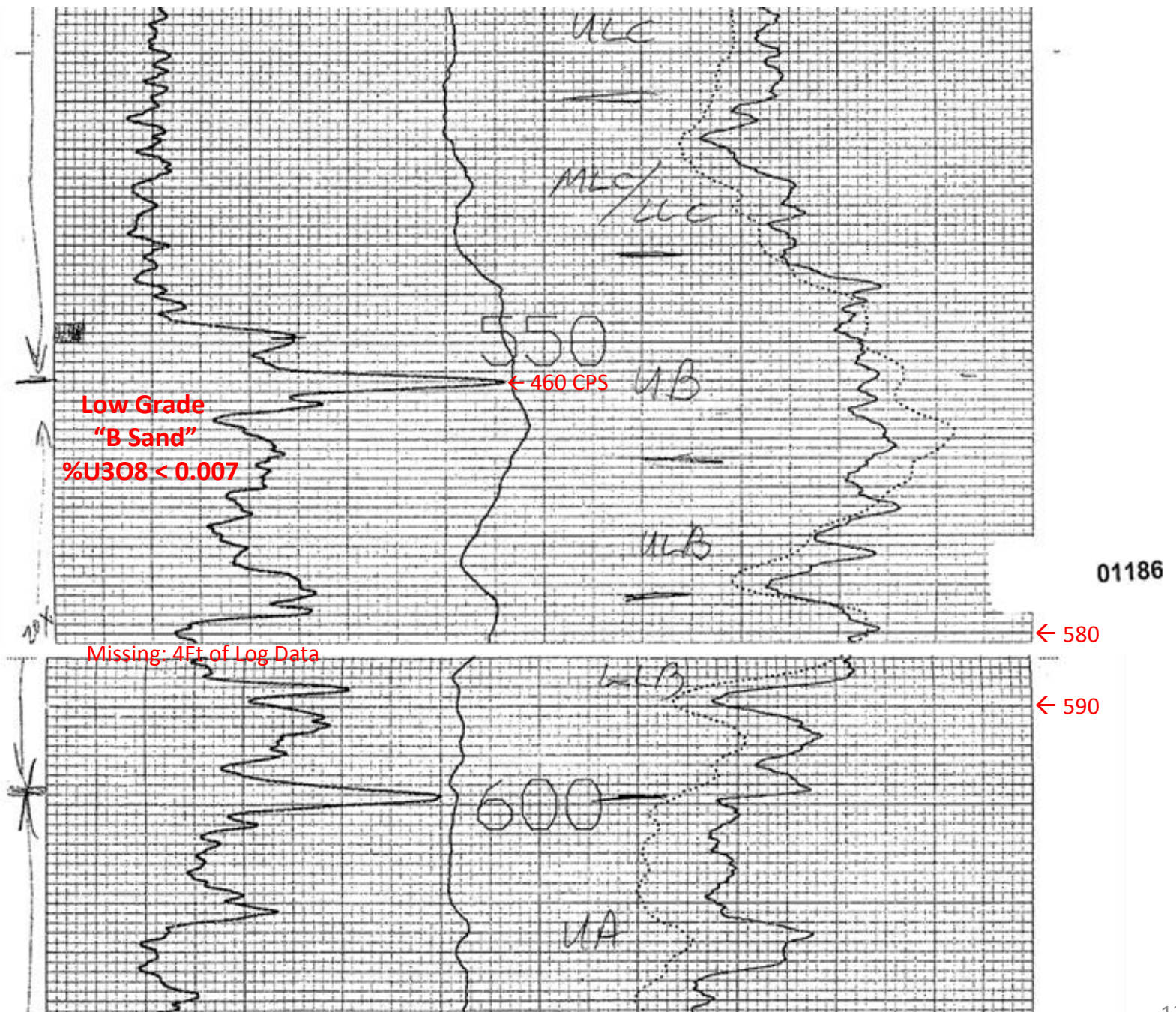
SINGLE POINT RESISTANCE

SP/16 INCH NORMAL

64 INCH NORMAL

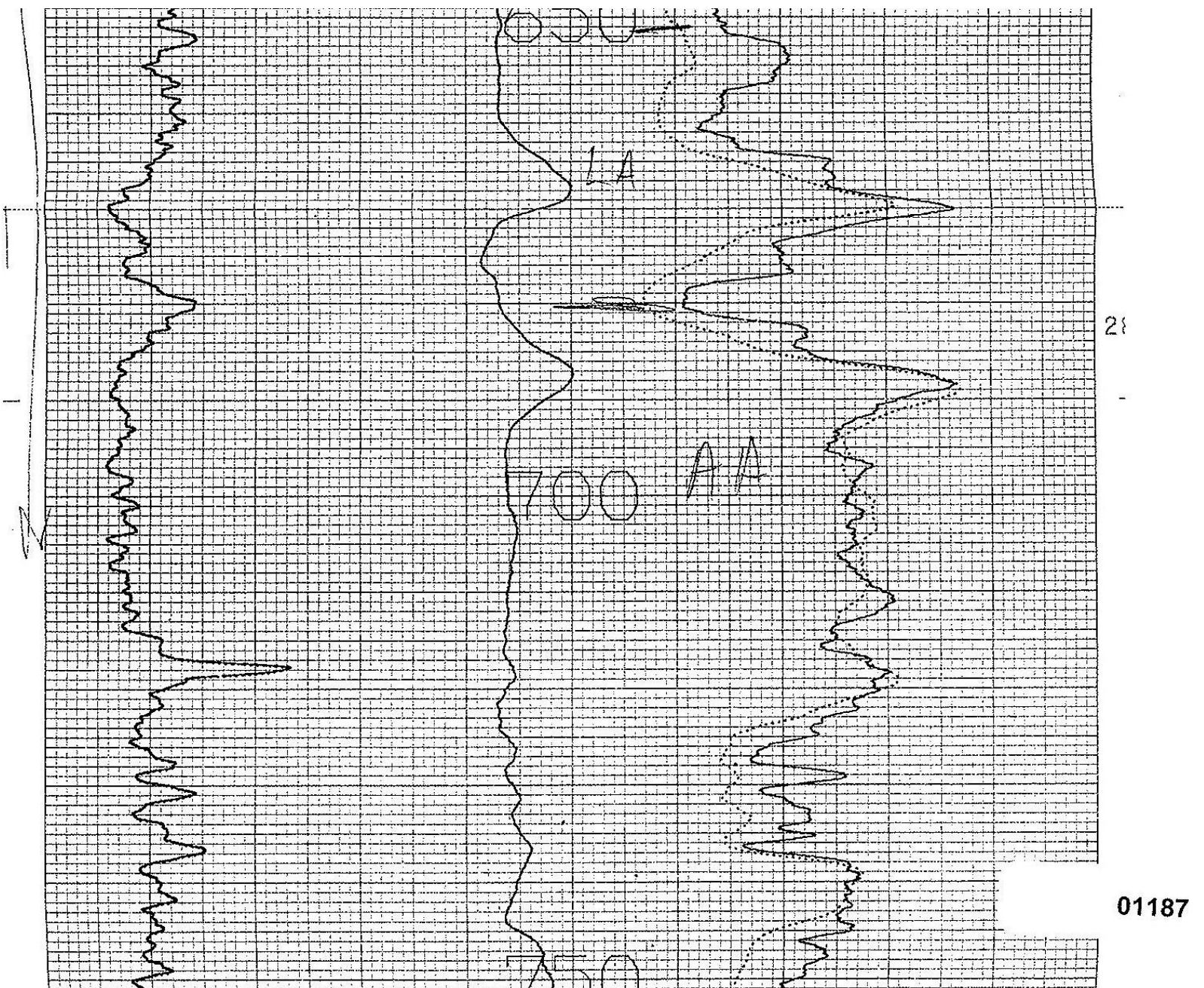


## Garcia 1





## Garcia 1



KVD Exploratory Well Garcia 1. About 800 Ft South and East of Garcia Hill W-20.  
"AA Sand" (nearly Uranium free?... no GR curve scales provided).

URANIUM RESOURCES, INC

HOLE NUMBER GARCIA-1622

KLEBERG COUNTY TEXAS

SEC--- TWN--- RNG---

KINGSVILLE DOME

TD DRILLED - 650  
TD LOGGED -  
LOGGING SPEED - 60 FPM  
REFERENCE - SURFACE  
BIT SIZE - 3 5/8

ELEVATION -  
CASING TYPE - NONE  
HOLE FLUID - H2O  
DRILLER - PETE

REMARKS:

COMPUTER LOGGING, INC.

Pleasanton, Texas

Telephone 512-569-6256

CHARLIE - UNIT: 5

10-4-89 - 1700 HRS.

TOOL MODEL/SER.NO.: 20-4

NATURAL GAMMA

DETECTOR - 875 : 4.0 NaI(Tl)  
K-FACTOR 00000644  
DEADTIME - 00000025  
TEST PIT - GEORGE WEST  
LAST CAL. - 9-3-89  
WATER FACTOR - 1.16  
CASING FACTOR-

NEUTRON

DETECTOR - 1 X 6 INCH, HE3  
SOURCE - 1.5 CI. AmBe  
SPACING - 14 INCHES

ELECTRIC LOSS

SINGLE POINT RESISTANCE  
SP/16 INCH NORMAL  
64 INCH NORMAL



**KVD Exploratory Garcia 1622**

02445

550

← 550

← 560

← 570

← 580

← 4100 CPS

**Low-Medium Grade**

**"B Sand"**

**%U308 < 0.15?**

Missing: 4 Ft of Log Data

← 10600 CPS

← 590

← 600

2000 INCH

600



# KVD Exploratory Well Garcia 1622

## Uranium Assay for "B Sand" Segment

DEPTH	GAMMA-HI CPS PROBE COUNTS		GAMMA-HI CPS, CORRECTED	%U308 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE
565.00	1000.00		1000.25	0.0129	0.0148	0.0148
565.50	1600.00		1600.64	0.0206	0.0237	0.0237
566.00	2400.00		2401.44	0.0309	0.0355	0.0355
566.50	3400.00		3402.89	0.0438	0.0503	0.0503
567.00	3700.00		3703.43	0.0477	0.0548	0.0548
567.50	4100.00		4104.21	0.0529	0.0607	0.0607
568.00	3800.00		3803.61	0.0490	0.0563	0.0563
568.50	3100.00		3102.40	0.0400	0.0459	0.0459
569.00	2300.00		2301.32	0.0296	0.0340	0.0340
569.50	1500.00		1500.56	0.0193	0.0222	0.0222
570.00	1000.00		1000.25	0.0129	0.0148	0.0148
580.00	800.00		800.16	0.0103	0.0118	0.0118
580.50	1000.00		1000.25	0.0129	0.0148	0.0148
585.50	10600.00		10628.16	0.1369	0.1572	0.1572
586.00	10000.00		10025.06	0.1291	0.1483	0.1483
586.50	8500.00		8518.10	0.1097	0.1260	0.1260
587.00	7200.00		7212.98	0.0929	0.1067	0.1067
587.50	5400.00		5407.30	0.0696	0.0800	0.0800
588.00	4100.00		4104.21	0.0529	0.0607	0.0607
588.50	3300.00		3302.72	0.0425	0.0489	0.0489
589.00	2900.00		2902.10	0.0374	0.0429	0.0429
589.50	2400.00		2401.44	0.0309	0.0355	0.0355
590.00	1900.00		1900.90	0.0245	0.0281	0.0281
590.50	1500.00		1500.56	0.0193	0.0222	0.0222
591.00	1100.00		1100.30	0.0142	0.0163	0.0163

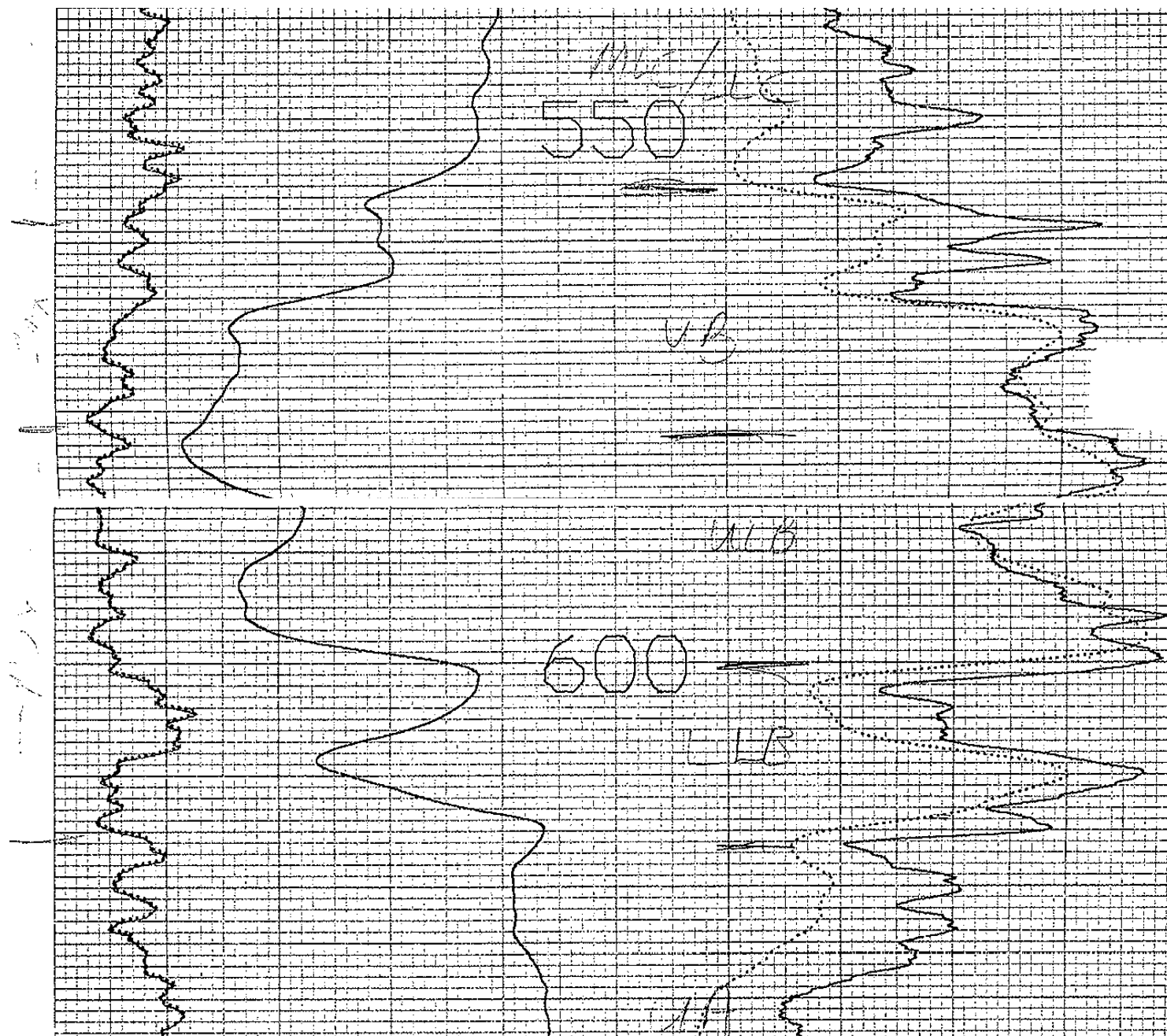
Garcia 1622 (10/04/89)

[illegible]

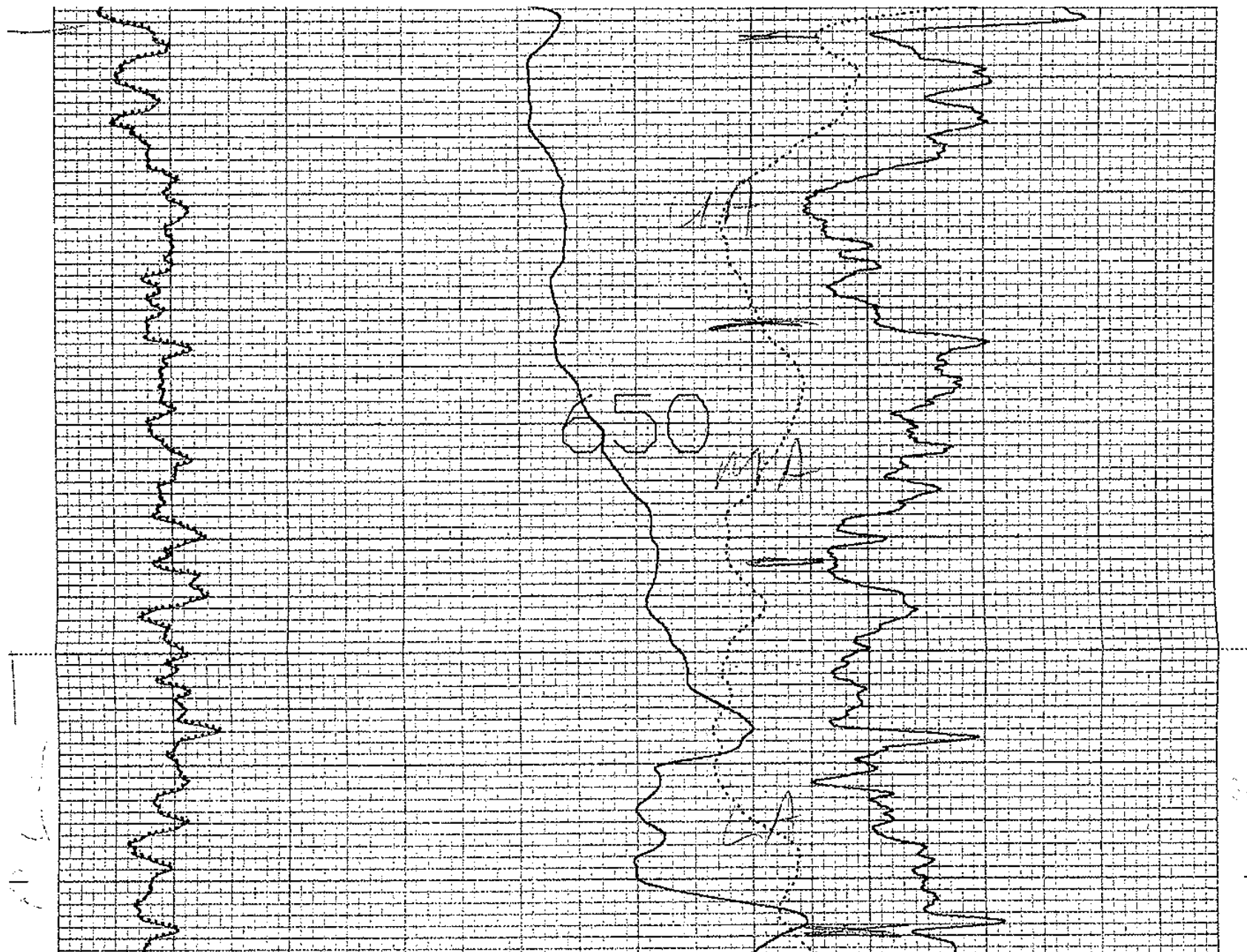
The Garcia Hill W-25 is completed in the “B Sand”

There is a 25 to 30 Ft difference in elevation between W-25 and Garcia 1622.

URANIUM RESOURCES INC.		COMPUTER LOGGING INC.	
HOLE NUMBER GARCIA #5		Pleasanton, Texas	
KLEBERG COUNTY TEXAS		Phone 512-569-6256	
SEC---TWN---RNG---		JIM CANNON - UNIT: 13	
KINGSVILLE DOME		02-25-88 - 1500	
		PROBE MODEL: 20-1	
TD DRILLED = 750	ELEVATION =	NATURAL GAMMA	DETECTOR = .875 x 4.0 NaI(Tl)
TD LOGGED = 734	CASING TYPE = NONE		K-FACTOR = 5.20
LOGGING SPEED = 60 FPM	HOLE FLUID = H2O		DEADTIME = <.25 MICRO SECONDS
REFERENCE = SURFACE	FLUID TEMP. =		TEST PIT = GEORGE WEST
BIT SIZE = 5 1/8			LAST CAL. = 01-04-88
		NEUTRON	WATER FACTOR = 775
			CASING FACTOR =
REMARKS:		ELECTRIC LOGS	DETECTOR = 1 X 6 INCH. HE3
DRILLER AMADOR			SOURCE = 1.5 CI. AmBe
			SPACING = 14 INCHES
			SINGLE POINT RESISTANCE
			SP/16 INCH NORMAL
			64 INCH NORMAL

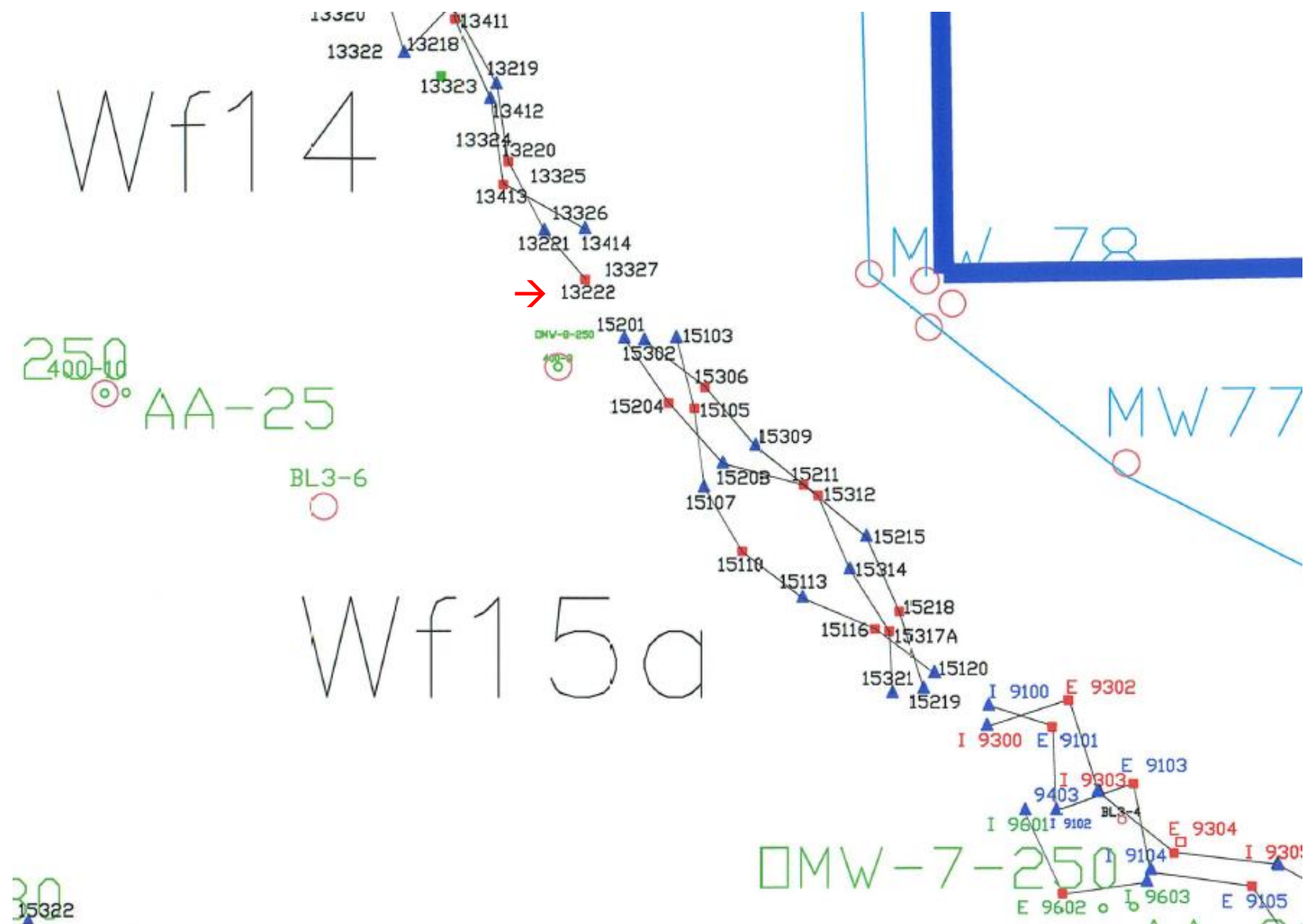








01136



KVD PA-3 Segment. Was Exploratory Well Garcia 1622 Completed as a "B Sand" (?) Producer 13222?.

Note that Injector 13326 is not connected to 13222 suggesting completion in different zones.

Is there information documenting Which Sands were produced at PA-3?

<b>Application of URI, Inc.</b>	<b>§</b>	<b>Before the State Office</b>
<b>to TCEQ for Issuance of a Production</b>	<b>§</b>	
<b>Area Authorization for Production</b>	<b>§</b>	<b>of Administrative Hearings</b>
<b>Area 3 Under Permit URO 2827</b>	<b>§</b>	
<b>and</b>	<b>§</b>	
<b>Renewal of TCEQ Waste Disposal Well</b>	<b>§</b>	
<b>Permit Nos. WDW-247 and WDW-248</b>	<b>§</b>	

**PREFILED TESTIMONY**

OF

**ROBERT S. KIER, Ph.D.**

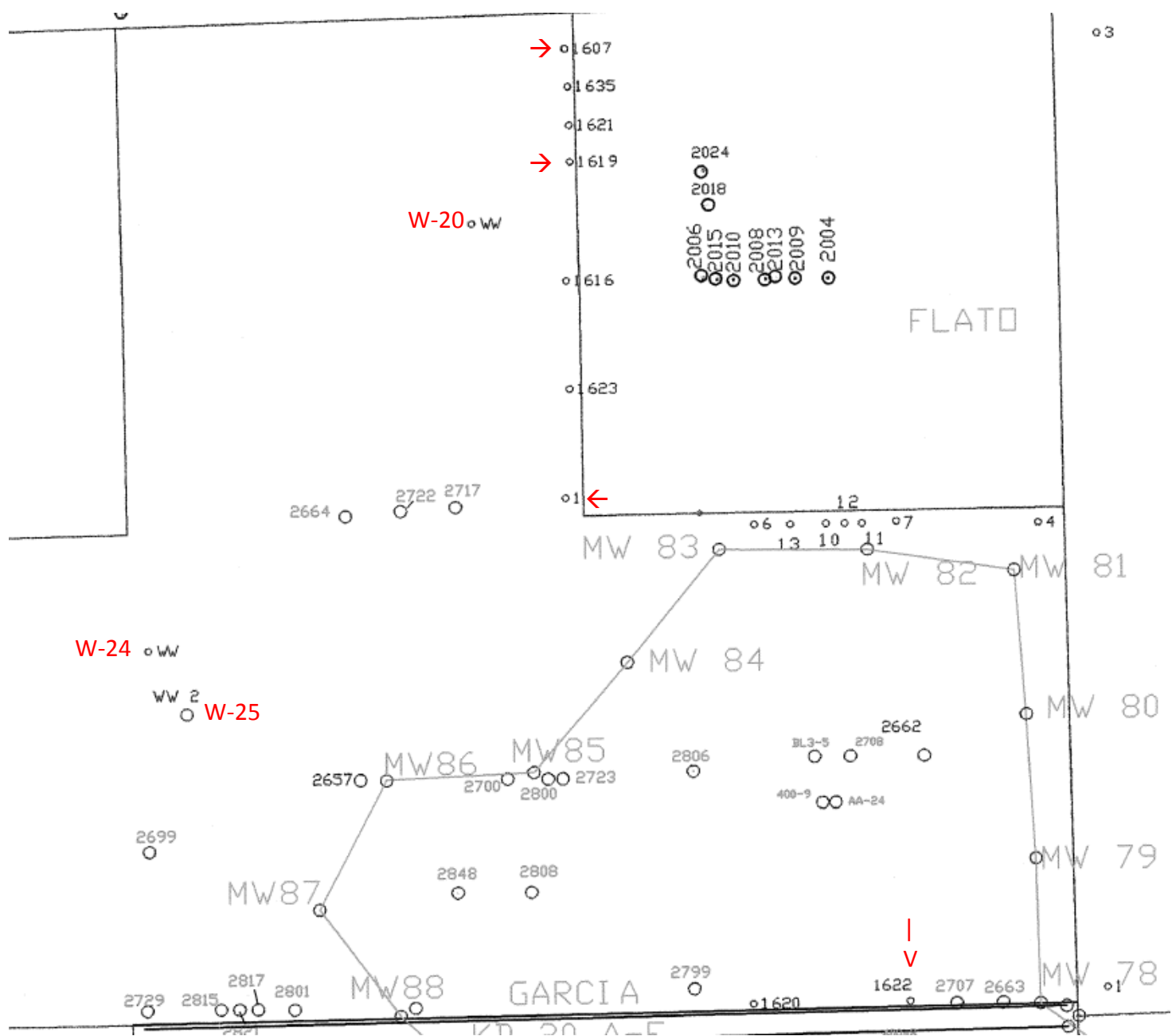
**Filed on Behalf of South Texas Opposes Pollution (STOP)  
and Hermila Garcia**

On Page 9:

section. The top and bottom of the 400-foot overlying fresh water aquifer sand do not match on the two cross-sections. Neither the top nor bottom of the A & B Sand, which comprise the production zone, match on the two cross-sections. The

Only the A and B sands are to be mined in PAA 3; thus, as indicated by TCEO





Shown KVD Exploratory Wells' Locations Relative to Garcia Hill W-20's Location